

REMARKS

This is in response to the Office Action that was mailed on March 8, 2005. Formal corrections are made to claims 1, 3, and 14. In addition, the process limitation is deleted from each of claims 1 and 14, and new claims 17 and 18 are added, reciting the processes deleted from claims 1 and 14, respectively. No new matter is introduced by this Amendment. Claims 1, 3-8, 10, 12, 14, and 16-18 are pending in the application.

Claims 1, 3-8, 10, 12, 14, and 16 were rejected under the second paragraph of 35 U.S.C. §112 as failing to define the invention properly. The Examiner raises two different issues with respect to this rejection. The first issue has to do with the question of what the thickness of the upper layer is increased with respect to. That issue is addressed by the current amendments of the claims. The second issue raised by the Examiner contends that the recitation of quantitative ranges for the phosphor layers in claims 10 and 12 is inconsistent with claim 1 from which they depend. Specifically, the Examiner questions how the uppermost layer can be increased in thickness with respect to a lower layer if the lower layer has a thickness at the maximum value of the stated range. In the present situation, the requirement that the uppermost layer be thicker than each of the layers beneath it means that each of the layers beneath the uppermost layer will necessarily have thicknesses that are less than whatever specific thickness in the recited range is selected for the uppermost layer. This is believed to

be readily understandable by those skilled in the art of the present technology. Claim 1 expressly requires that "the thickness of the uppermost layer is increased relative to the thickness of a layer beneath the uppermost layer". One skilled in the art would recognize that, if the (thicker) uppermost layer is selected to be 200 μm in thickness, the claim 10 recitation "wherein the thickness of each phosphor layer is in the range of 20-500 μm " must be construed as requiring that each layer beneath the uppermost layer be selected to be less than 200 μm in thickness. Claim 10 does not, then, somehow become improper if the uppermost layer is selected to be 500 μm in thickness. It is respectfully submitted that the claims in their present form satisfy the requirements of the statute.

Claims 1, 3, 5-8, 10, 12, 14, and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,979,200 (hereinafter "Umemoto") and in view of Japanese patent publication JP 08-313699 A (hereinafter "Ohara"). The rejection is respectfully traversed.

The Examiner acknowledges that Umemoto fails to teach a thickness of an uppermost layer that is increased relative to the thickness of each layer beneath the uppermost layer. The Ohara reference allegedly remedies the deficiencies of the Umemoto reference. Ohara, in paragraph [0043], states that the thickness of phosphor layers may be the same, or may become thick gradually towards the top protective layer side, or may become thin gradually towards the top protective layer side. Thus the

Ohara teaching does not teach a person of ordinary skill in the art which direction he or she should go with respect to layer thickness, and therefore the Ohara teaching fails to motivate changing the Umemoto technology in a way that would provide the present invention.

What the Examiner appears to be saying in this rejection is that the present invention is obvious because a person of ordinary skill in the art **could** carry it out. "The mere fact that a reference **could be** modified to produce the patented invention would not make the modification obvious unless it is suggested by the prior art." *Libbey-Owens Ford Co. v. BOC Group Inc.*, 655 F. Supp. 897, 906, 4 USPQ2d 1097, 1103 (D.N.J. 1987) (emphasis supplied). "Something in the prior art as a whole must suggest the **desirability** ... of making the combination." *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051-52, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988) (emphasis supplied). "The mere combination of prior art references does not make an invention obvious unless something in the prior art suggests or reasonably implies an **advantage to be derived** from uniting their teachings." *Creative Pioneer Products Corp. v. K-Mart Corp.*, 5 USPQ2d 1841, 1844 (S.D. Tex 1986) (emphasis supplied).

Clearly, the rejection as stated over Umemoto in view of Ohara is not sustainable, and should be withdrawn.

Even though no *prima facie* case of obviousness has been established, Applicant respectfully submits that the present invention provides

unexpected results, and that such results rebut any alleged *prima facie* case of obviousness.

The present invention comprises two embodiments, one of which is reflected in claims 1, 3-8, 10, 11, and 17, and the other of which is reflected in claims 14, 16, and 18. The invention of claims 1, 3-8, 10, 11, and 17 - in which the thickness of the uppermost layer is increased relative to each layer beneath the uppermost layer - provides a radiation image conversion panel which is excellent in graininess. The invention of claims 14, 16, and 18 - in which the thickness of the uppermost layer is decreased relative to each layer beneath the uppermost layer - provides a radiation image conversion panel which is excellent in emission of sufficient quantity of light. These benefits of the present invention overall are established by the disclosure herein - see e.g. the 'Summary of the Invention' on pages 4-6 of the specification, and the experimental results reported and discussed on page 25 of the specification. These beneficial attributes of the two different embodiments of the present invention are neither taught nor suggested by Ohara or by any combination of the prior art of record. Instead, the Ohara reference suggests to those of ordinary skill in the art that relative layer thickness simply does not matter.

Thus, Applicant respectfully submits that the present invention is characterized by unexpected results. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Application No. 09/560,819
Art Unit 2879

Applicant has taken substantial steps to advance prosecution of the present application. Thus, Applicant respectfully requests that a timely Notice of Allowance issue for the present case.


Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$1020.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard Gallagher (Reg. No. 28,781) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Application Data Sheet